



Video Optimization

Mobile data services are all the rage nowadays, among which some high data usage services such as mobile video are particularly popular.

Abundant mobile video contents & applications are appearing on the market and growing rapidly every day. As mobile data usage makes up 40% - 60% of total 3G bandwidth utilization, subscribers will start to feel the effects of a congested network, especially during some peak time periods or at subscriber-heavy cell sites.

To solve the problem of bandwidth insufficiency, one of the simplest ways for operators is to upgrade their networks and obtain more bandwidth. However, it will also result in a large amount of bandwidth being unused during non-peak hours or in sparse areas, making the investment a waste of money and resources.

What mobile operators really need is to utilize the network bandwidth in a more efficient way. By reducing the unnecessary traffic consumption of a subscriber to download a full piece of video which he/she might never finish watching, or the bandwidth usage coming from redundant requests to download the same video content repeatedly, we can allow more users to enjoy the limited resources at the same time. More importantly, bandwidth usage in peak hours or busy districts must be controlled & managed to avoid congestion and video playback interruption, providing the subscribers with better user experience.



Our Solution

WiseSpot Video Optimization Solution

WiseSpot Video Optimization solution can help operators save around 35% radio bandwidth through optimization of 60% of video traffic, all the while keeping any change in video quality unnoticeable to the subscriber. We provide multi-level optimization technologies from pacing, caching, transrating & transcoding to adaptive streaming, so as to provide a full control over the optimization results.

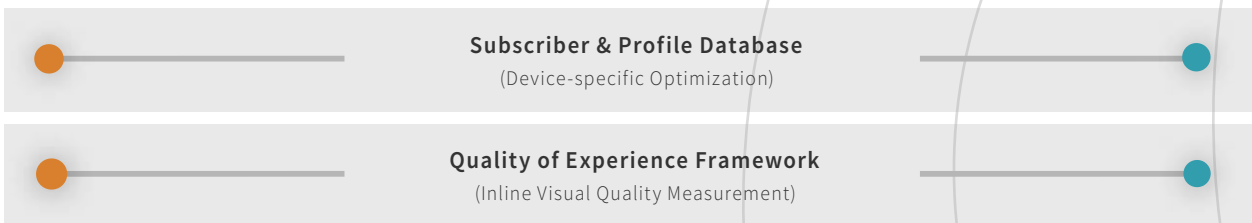


The results of savings in bandwidth can be used by all data services, not just video.

It could delay or spread out the need to invest in additional radio bandwidth to accommodate growth. Meanwhile, with smoother video playback and less stalling & congestion, mobile operator can provide subscribers with enhanced user experience, resulting in increased customer satisfaction and loyalty.

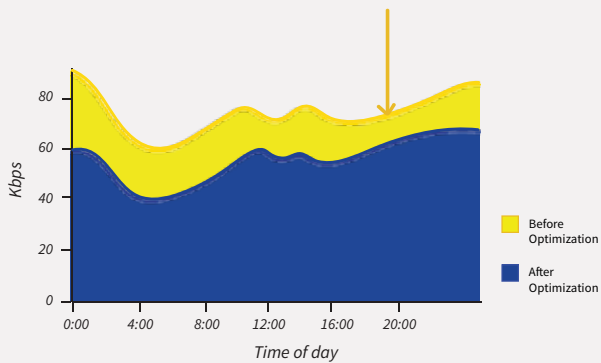
BANDWIDTH OPTIMIZER

Pacing	Smart Caching	Policy Based Optimization	Transrating & Transcoding	Adaptive Streaming
No change in quality	No change in quality	Optimizes content according to subscriber, handset type and statistic	Real-time processing	Adjusts the encoding of media stream to changing bandwidth conditions
Converts download into stream	Reduces latency	Reduces hardware	Reduces storage	Prevents video playback stalling (screen freezing)
Just-in-time delivery	Serves 2nd request and subsequent requests	Suitable for different scenarios	Serves every requests	
Decongests overloaded cells	Enables proactive optimization			



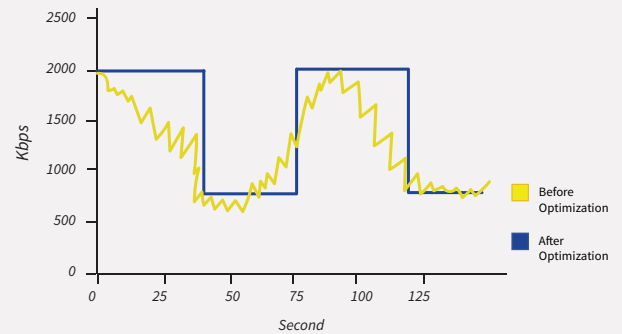
✓ BANDWIDTH COMPARISON

Before optimization, a huge amount of bandwidth is needed during peak hours.



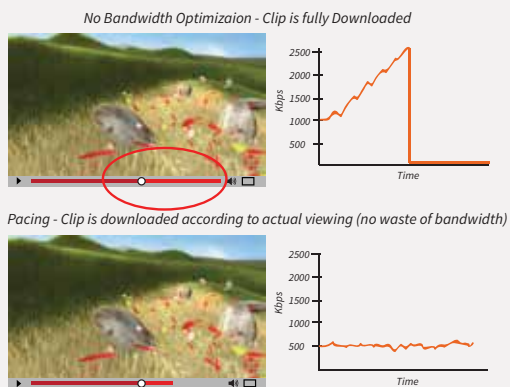
✓ OPTIMIZATION: ADAPTIVE STREAMING

Video bitrate and quality are changing adaptively according to available bandwidth.



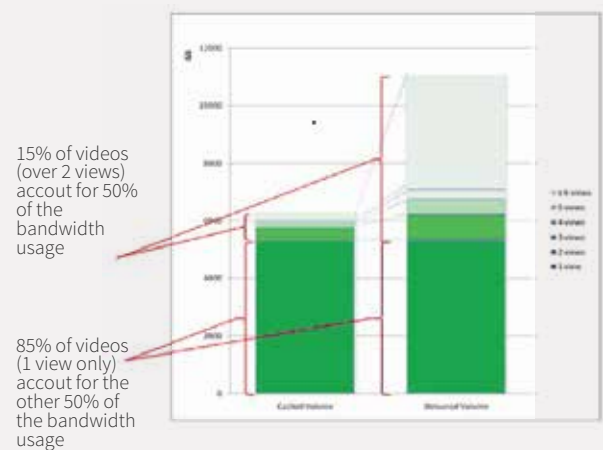
✓ AFTER OPTIMIZATION: PACING

- No change in video quality
- Mechanism to control the download speed of video such that no excessive wastage of video is downloaded



✓ AFTER OPTIMIZATION: SMART CACHING

Selective optimization on 15% of the hot videos with more views can increase the efficiency of the bandwidth usage.



Why WiseSpot?

Headquartered in Hong Kong since 2001, WiseSpot Company Limited has become a leading developer of telecom solutions and system integrator with over 100 live installations covered by the 7x24x4 on-site support, spanning Greater China, Singapore, Australia, UK and USA. In addition to our dedicated product development center in Shenzhen and a full-service regional office in Taipei, we are a team that is well versed in the latest fixed, mobile and IP data technologies. Backed by an international network of best-in-class technology partners, we have a proven track record of successful implementation into live production networks with minimal risk of service interruption. Our experience ensures that the final solution ultimately installed is of uncompromising quality and meets both the business, technical and budgetary objectives.